WO 2004/057111

PCT/NL2003/000918

10

Claims

- 1. Artificial turf mat, comprising a backing and a number of protruding artificial grass blades divided into rows and connected thereto, characterized in that the mutual distance between successive blades in a row is substantially equal to the distance between adjacent rows and amounts to at least 10 mm.
- 2. Artificial turf mat as claimed in claim 1, characterized in that the distance between the blades and the row spacing amount to at least 13 mm, and preferably to at 10 least 16 mm.
 - 3. Artificial turf mat as claimed in claim 1 or 2, characterized in that the backing and the blades are formed and mutually connected by weaving.
- Artificial turf mat as claimed in claim 1 or 2,
 characterized in that the backing is a fabric and the blades are connected thereto by tufting.
 - 5. Artificial turf mat as claimed in claim 4, characterized in that the blades are formed from a continuous fibre.
- 6. Artificial turf mat as claimed in claim 5, characterized in that at least one support loop protruding less far from the backing is formed in each case between successive blades.
- 7. Artificial turf mat as claimed in claim 6,
 25 characterized in that the support loops are formed outside the row of blades.
 - 8. Artificial turf mat as claimed in claim 7, characterized in that the support loops are formed from another fibre material than the blades.
- 9. Artificial turf mat as claimed in any of the claims 6-8, characterized in that the blades and/or the

WO 2004/057111 PCT/NL2003/000918

11

support loops are formed from a relatively thick or heavy fibre material.

- 10. Artificial turf mat as claimed in any of the foregoing claims, characterized in that the blades are formed from monofilament fibre.
- 11. Artificial turf field, comprising an artificial turf mat as claimed in any of the foregoing claims and a layer of loose filling material arranged thereon, the thickness of which is less than the length of the artificial grass blades.
 - 12. Method for forming an artificial turf mat, comprising of supplying a backing material, supplying an artificial turf material, forming a backing from the backing material, and connecting blades of the artificial turf material divided into rows to the backing, characterized in that the blades are connected to the backing such that their mutual spacing in a row is substantially equal to the mutual distance between adjacent rows and amounts to at least 10 mm.
- 13. Method as claimed in claim 12, characterized in 20 that the blades are connected to the backing at a mutual distance and a row spacing of at least 13 mm, and preferably at least 16 mm.
- 14. Method as claimed in claim 12 or 13, characterized in that the backing is formed by weaving the backing material, and the artificial turf material is cowoven to form the blades.
 - 15. Method as claimed in claim 12 or 13, characterized in that the backing material is formed into a fabric and the blades are connected to the fabric by tufting.
- 16. Method as claimed in claim 15, characterized in that the fabric is guided along a series of reciprocally movable tufting needles placed adjacently of each other at the row distance, and the speed of forward movement of the

10

WO 2004/057111 PCT/NL2003/000918

12

fabric and the stroke speed of the tufting needles are adjusted to each other such that between successive strokes of the tufting needles the fabric is displaced substantially through the row distance.

- 17. Method as claimed in claim 16, characterized in that the fabric is stopped after each displacement through the row distance.
 - 18. Method as claimed in any of the claims 15-17, characterized in that the blades are formed from a continuous fibre.
 - 19. Method as claimed in claim 18, characterized in that at least one support loop is tufted into the fabric between successive blades, which support loop is pressed less far through the fabric than the adjacent blades.
- 15 20. Method as claimed in claim 19, characterized in that the support loops are formed outside the row of blades.
- 21. Method as claimed in claim 19, characterized in that the support loops are formed from another fibre material and connected to the fabric by another set of tufting needles than the blades.
 - 22. Method as claimed in any of the claims 19-21, characterized in that the blades and/or the support loops are formed from a relatively thick or heavy fibre material.
- 23. Method as claimed in any of the claims 12-22,
 25 characterized in that the artificial turf material comprises monofilament fibres.
 - 24. Method for forming an artificial turf field by arranging on a ground an artificial turf mat as claimed in any of the claims 1-10, and spreading thereover a layer of loose filling material to a thickness which is less than the length of the artificial grass blades.